MSRRPWLLALALAVALAAGSAGASTGSDATVPVATQDGPDY VFHRAHERMLFQTSYTLENNGSVICIPNNGQCFCLAWLKSNG TNAEKLAANILQWITFALSALCLMFYGYQTWKSTCGWFFIYVA TIEMIKFIIEYFHEFDEPAVIYSSNGNKTVWLRYAEWLLTCPVILI HLSNLTGLANDYNKRTMGLLVSDIGTIVWGTTAALSKGYVRVI FFLMGLCYGIYTFFNAAKVYIEAYHTVPKGICRDLVRYLAWI Y **FCSWAMFPVLFLLGPEGFGHINQFNSAIAHAILDLASKNAWS** MMGHFLRVKIHEHILLYGDIRKKQKVNVAGQEMEVETMVHEE DDETQKVPTAKYANRDSFIIMRDRLKEKGFETRASLDGDPNG DAEANAAAGGKPGMEMGKMTGMGMGMGAGMGMATIDSGR VILAVPDISMVDFFREQFARLPVPYELVPALGAENTLQLVQQA QSLGGCDFVLMHPEFLRDRSPTGLLPRLKMGGQRAAAFGW AAIGPMRDLIEGSGVDGWLEGPSFGAGINQQALVALINRMQQ AKKMGMMGGMGMGMGGMGMGMGMAPSMNAGM TGGMGGASMGGAVMGMGMGMQPMQQAMPAMSPMMTQQ **PSMMSQPSAMSAGGAMQAMGGVMPSPAPGGRVGTNPLFG** SAPSPLSSQPGISPGMATPPAATAAPAAGGSEAEMLQQLMS **EINRLKNELGE**

(1)

MDYGGALSAVGRELLFVTNPVVVNGSVLVPEDQCYCAGWIE SRGTNGAQTASNVLQWLAAGFSILLLMFYAYQTWKSTCGWE EIYVCAIEMVKVILEFFFEFKNPSMLYLATGHRVQWLRYAEWL LTCPVILIHLSNLTGLSNDYSRRTMGLLVSDIGTIVWGATSAMA TGYVKVIFFCLGLCYGANTFFHAAKAYIEGYHTVPKGRCRQV VTGMAWLFFVSWGMFPILFILGPEGFGVLSVYGSTVGHTIIDL **MSKNCWGLLGHYLRVLIHEHILIHGDIRKTTKLNIGGTEIEVETL** VEDEAEAGAVNKGTGKYASRESFLVMRDKMKFKGIDVRASI DNSKEVEQEQAARAAMMMMNGNGMGMGMGMNGMNGMG GMNGMAGGAKPGLELTPQLQPGRVILAVPDISMVDFFRFQFA QLSVTYELVPALGADNTLALVTQAQNLGGVDFVLIHPEFLRDR SSTSILSRLRGAGQRVAAFGWAQLGPMRDLIESANLDGWLE **GPSFGQGILPAHIVALVAKMQQMRKMQQMQQIGMMTGGMN** GMGGGMGGMNGMGGGNGMNNMGNGMGGGMGNGMGG NGMNGMGGGNGMNNMGGNGMAGNGMGGGMGGNGMGG SMNGMSSGVVANVTPSAAGGMGGMMNGGMAAPQSPGMN GGRLGTNPLFNAAPSPLSSQLGAEAGMGSMGGMGGMSGM GGMGGMGGMGGAGAATTQAAGGNAEAEMLQNLMNEINRL KRELGE

MiptavegvsqAQITGRPEWIWLALGTALMGLGTLYFLVKGMGVS
DPDAKKFYAITTLVPAIAFTMYLSMLLGYGLTMVPFGGEQNPI
YWARYADWLFTTPLLLLDLALLVDADQGTILALVGADGIMIGT
GLVGALTKVYSYRFVWWAISTAAMLYILYVLFFGFTSKAESMR
PEVASTFKVLRNVTVVLWSAYPVVWLIGSEGAGIVPLNIETLLF
MVLDVSAKVGFGLILLRSRAIFGEAEAPEPSAGDGAAATSD

1

| 60 23 | 118 79 51 | 178 139 100 | 235 196 157 |
|--|--|-------------------|---|
| Chop1MSRRPWLLALALAVALAAGSAGASTGSDATVPVATQDGPDYVFHRÄHERMEÇTSYTLEN Chop2 | * Chop1Ncsvicienngocfclawlksnginaekiraniimomitfalsamcinewsamcanksmc Chop2Ncsvi-veed-ocycagniesrcingaqirsnvionlaagfsieimmyavomnksmc BopLptavegvsqaqitgrpuminlalgtalmgmgmgtyflvkgmgvsdepbakk <mark>e</mark> yai <mark>m</mark> tivpa | | Chop1cland*nkfin-cllvsdigitamethalskevn-bvlfflescriteringa-kv Chop2clsndysrfin-cllvsdigitamandshancyv-kvlffclsicyaniffhar-kak Bopv-dat-Q-Grilawgangimigicilvgantrysyffunaistaami*ilyvlffget |

Fig. 10

295 256 215 376 459 436 KNAMSAMSHEIRVKTHEHILLYGDIRKKOKVNVAGOEMEVETMNHEEDDETOKVP-TARY KNCMGLEGHYIRVLTHEHILIHGDIRKTTKLNIGGTEILWETLNEDBAEAGAVNKGTGFY KVGEGLI---LIRSRAIFGEAEAPEPSAGDGA-ARTSD THILDIEGERALLSVYGSTVGHTETBEME YPWVWEIGSBCACIVPLNIBTLLFMVTBYSA Chop1...anrdsbiimrurikergfetrasingdpngdarargekememekmtgmgmsmgrach Chop2...asrespivmkergidvrasinnskeveoroaaraammngngmgmgmgmngngm Chop1..GMATIDS--------GRVTLAVPDISMVDFFFEOFARIPVFALVFALGAENT Chop2..GGMNGMAGGAKPGLELTPQLQPGRVTLAVPDISMVDFFFEQFAQESVTYELVPALGADNI KCK QV&TGMAW F#VS¤GMGW '--ASTFKV#RNVTVVL**W**SA TEATHTVEKGICRDLWRYLAMTYECS SKAESMREEV Bop. Chop1.. Bop.. Chop2.. Chop1.. Chop2..

568 I WOOAQSIIGGCDFVLMHPEFFRDESPIGLIIPRIKMGCORARAFGWAAIGFWRDIIEGS I WIDAONEGGVDFVLIHPEFTRDFSSIISRIRGAGORVRAFGWAQIGFMRDIIESA Chop1..GVESWIEGESFEAGTNQQALVALINRMQQAKKMGMMG------EMGMGMGGGMG-N Chop2..nldgwiegesfegogtlpahiwalvakmocmrknoomooigmmiggmngmggmmggm Chop1...CI

Fig. 1D (continued)

616 616 G-MAPSINACITIGINGG---ASMGG----AVMCMGMGMGMQPMQQAMP--AMSPM GNEWGANGMEGGNGMNNMGENGMAGNGMGGGGGGGGG Chop1.. Chop2..

919 667 Chop1..MTQQPS-MMSQPSAMSAGGAMQAMGGVMPSBAP----GGRVGTNPLFGSAPSPLSSQ---Chop2..Mngmssgvvanvtpsaaggmanggmappspgmnggrigtnplfnaapsplssglga

712 737 Chop2..Eagmgsmggmsgmggmggmggmggagaattoaaganamammgnlmnmmn

Fig. 1D (continued

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| 510520530540 | |
|--|-----|
| MDYGGALSAVGRELLFVTNPVVVNGSVLVPEDQCYCAGWI | 40 |
| ESRGTNGAQTASNVLQWLAAGFSILLLMFYAYQTWKSTCG | 80 |
| WEEIYVCAIEMVKVILEFFFEFKNPSMLYLATGHRVQWLR | 120 |
| YAEWLLTCPVILIRLSNLTGLSNDYSRRTMGLLVSDIGTI | 160 |
| VWGATSAMATGYVKVIFFCLGLCYGANTFFHAAKAYIEGY | 200 |
| HTVPKGRCRQVVTGMAWLFFVSWGMFPILFILGPEGFGVL | 240 |
| SVYGSTVGHTIIDLMSKNCWGLLGHYLRVLIHEHILIHGD | 280 |
| IRKTTKLNIGGTEIEVETLVEDEAEAGAVNKGTGK | 315 |

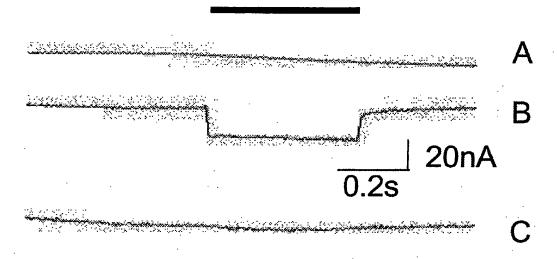
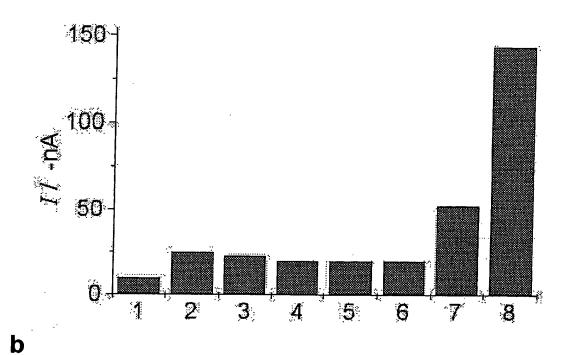


Fig. 2

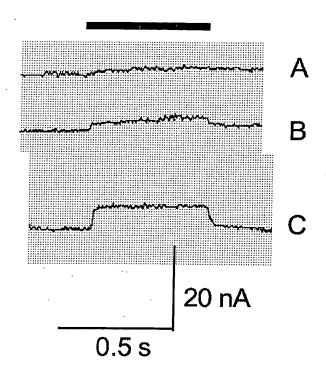
a



- NaCl, CapH 7.5 -50 2 -- NaCl, CapH 6 - NMG-CI, Ca pH 6 -100 ◆ NaCl, Ca pH 6 - NaCl, Mg pH 6 – Sorbit pH 5 -150 8 --- Sorbit pH 4 -50 -100 0 50 100 V/ mV

Fig. 3

a



b

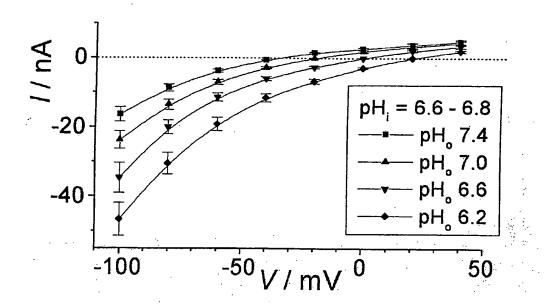
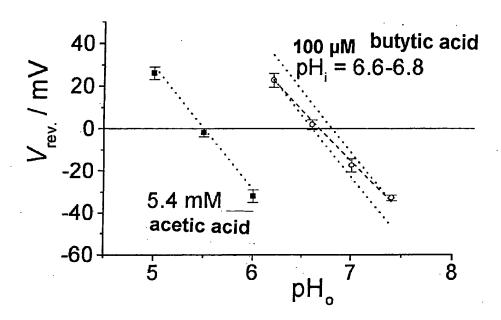


Fig. 4

C



d

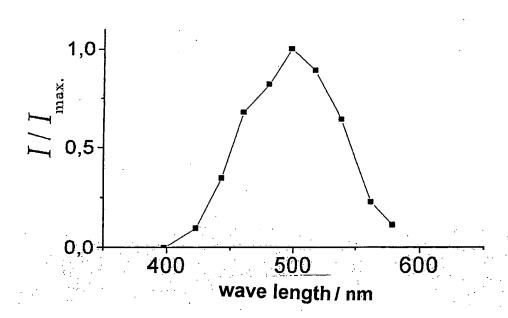


Fig. 4

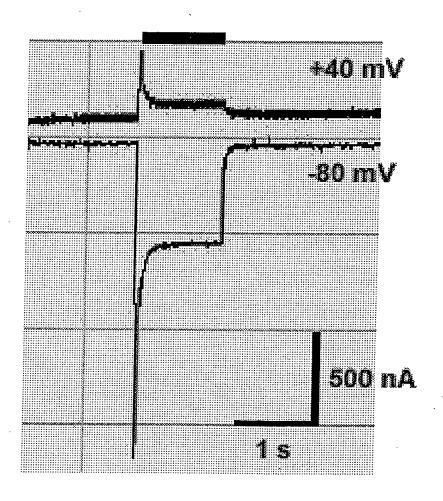


Fig. 5

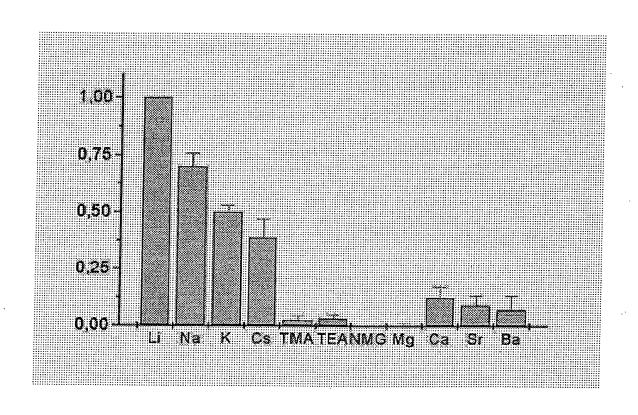


Fig. 6

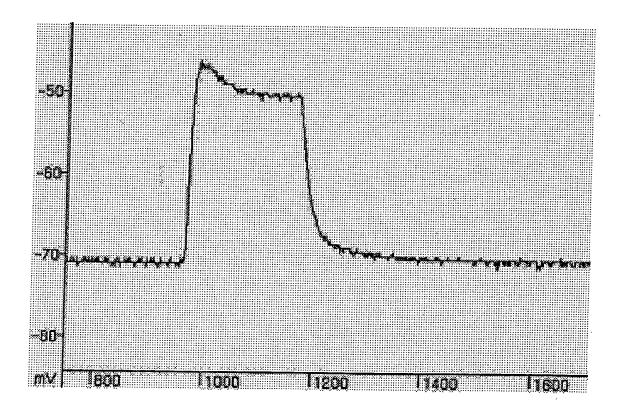


Fig. 7